| | Application No. | Applicant(s) | |
|---|---|---|---|
| **Notice of Allowability** | 09/756,673 | YOTSUMOTO, KOJI | |
| | Examiner | Art Unit | |
| | Harry Vartanian | 2634 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--*

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *1/10/2005*.

2. ☒ The allowed claim(s) is/are *9-10, 12-14, 18, 22-35, and 39-44*.

3. ☒ The drawings filed on *10 June 2004* are accepted by the Examiner.

4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All    b) ☐ Some*    c) ☐ None   of the:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

## EXAMINER'S AMENDMENT

1.     An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than

the payment of the issue fee.

An extension of time under 37 CFR 1.136(a) is required in order to make an

examiner's amendment which places this application in condition for allowance.  During a

telephone conversation conducted on 3/7/2005, Jeffrey D. Karceski requested an extension

of time for 2 MONTH(S) and authorized the Director to charge Deposit Account No. 033975

the required fee of $900 for this extension and authorized the following examiner's

amendment.   Should the changes and/or additions be unacceptable to applicant, an

amendment may be filed as provided by 37 CFR 1.312.  To ensure consideration of such an

amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Jeffrey D. Karceski(Reg# 35914) on 3/7/2005.  Discussions about this case were also made

on 2/11/2005 and 3/3/2005.


The application has been amended as follows:


In Claim 9, Lines 18-21 please make the following changes:

determining whether there is a distortion on said path waveform ~~when said peak~~
~~correlation value is great than said predetermined path recognition threshold value~~
<u>according to a correlation profile based on a ratio of said peak correlation value to at least one</u>
<u>of said at least two correlation values other than said peak correlation value</u>;    .

In Claim 12, Line 14 please make the following changes:


formed based on said at least two correlation values ~~when said peak correlation value is~~
~~greater than said path recognition threshold value and~~ <u>and a plurality of ratios of a plurality of respectively</u>
<u>neighboring correlation values</u>; and

Please CANCEL Claims 15, 16, and 17.

In Claim 18, Line 14 please change the following:

based on said at least two correlation values ~~when said peak correlation value is greater than said predetermined path recognition threshold value~~ and a ratio of said peak correlation value to a plurality of correlation values other than said peak correlation value; and


Please CANCEL Claims 19, 20, and 21.

In Claim 22, please make the following changes:

A CDMA wireless telecommunication system ~~as claimed in Claim 18, comprising: wherein said waveform distortion detector determines~~ comprising a mobile station for receiving a set of telecommunication signals through a telecommunication path from a base station, said mobile station comprising:

a spread code generator for generating at least two spread codes each of which has its own delay time, said spread codes including a predetermined number of spread code bits;

a correlator for calculating at least two correlation values of said set of signals with said at least two spread codes;

a comparator for comparing said correlation values with a predetermined noise threshold value, and comparing a peak correlation value with a predetermined path recognition threshold value;

a waveform distortion detector for determining whether there is a distortion on a path waveform of said path according to a correlation profile, said correlation profile being formed based on the existence of said distortion on said path waveform of said path according to a slope derived from said two correlation values; and

a path recognizing unit for recognizing said path as a valid receiving path for demodulating said received signals based on said at least two correlation values or recognizing said path as a noise when one of said peak correlation values is smaller than said predetermined noise threshold value.


In Claim 28, Lines 2-3 please change the following:

claim 27, further comprising a memory for storing said path for reevaluation ~~after at least one of said determining steps,~~


In Claim 32, Lines 2-3 please change the following:

claim 31, further comprising a memory for storing said path for reevaluation ~~after at least one of said determining steps,~~


In Claim 35, Line 13 please change the following:

based on said at least two correlation profile values ~~when said peak correlation value is greater than said predetermined path recognition threshold value~~ and a ratio of said peak correlation value to a plurality of correlation values other than said peak correlation value; and

Please CANCEL Claim 36, 37, and 38.

In Claim 39, please make the following changes:

A base band signal processor ~~as claimed in claim 35, wherein said waveform distortion detector determines~~ for receiving a set of telecommunication signals through a telecommunication path comprising:

 a spread code generator for generating at least two spread codes each of which has its own delay time, said spread codes including a predetermined number of spread code bits;

 a correlator for calculating at least two correlation values of said set of signals with said at least two spread codes;

 a comparator for comparing said correlation values with a predetermined noise threshold value, and comparing a peak correlation value with a predetermined path recognition threshold value;

 a waveform distortion detector for determining whether there is a distortion on a path waveform of said path according to a correlation profile, said correlation profile being formed based on the existence of said distortion on said path waveform of said path according to a slope derived from said two correlation values; and

 a path recognizing unit for recognizing said path as a valid receiving path for demodulating said received signals based on said at least two correlation values or recognizing said path as a noise when one of said peak correlation values is smaller than said predetermined noise threshold value.

In Claim 44, Line 13 please change the following:

based on ~~said at least two correlation profile values when said peak correlation value is greater than said predetermined path recognition threshold value~~ a ratio of said peak correlation value to at least one of said at least two correlation values other than said peak correlation value; and

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harry Vartanian whose telephone number is 571.272.3048. The examiner can normally be reached on 10:00-6:30 Mondays to Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571.272.3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information·regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system.    Status information for published applications may be obtained from either Private PAIR or Public PAIR.    Status information for unpublished applications is available through Private PAIR only.    For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Harry Vartanian
Examiner
Art Unit 2634

HV

STEPHEN CHIN
SUPERVISORY PATENT EXAMINE'
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